

Technical Data

Models 123.023 (230), 123.033 (280 E), 123.123 (240 D), 123.130 (300 D)

Engine

Chassis Type	123.023	123.033	123.123	123.130
Engine	115.954	110.984	616.913	617.912
Operation	four-stroke gasoline engine with carburetor	four-stroke gasoline engine mechanical (CIS) fuel injection with airflow sensor	four-stroke diesel engine with MB prechamber	four-stroke diesel engine with MB prechamber
Number of cylinders	4	6	4	5
Arrangement of cylinders	upright in line			
Bore/stroke mm (inches)	93.75/83.6 (3.69/3.29)	86/78.8 (3.39/3.10)	91/92.4 (3.58/3.64)	91/92.4 (3.58/3.64)
Total eff. piston displacement cm ³ (cu.inches)	2307 (140.8)	2746 (167.6)	2404 (146.7)	3005 (183.4)
Compression ratio	8 : 1		21 : 1	
Firing Order	1-3-4-2	1-5-3-6-2-4	1-3-4-2	1-2-4-5-3
Maximum engine rpm	6000	6500	5400 (no load)	5100 (no load)
Engine output SAE net. bhp/rpm	86/4800	142/5750 ¹) 137/5750 ²)	62/4000	77/4000
Maximum torque SAE net. lb-ft/rpm	116/3000	149/4600 ¹) 142/4600 ²)	97/2400	115/2400
Crankshaft bearings	5	7	5	6
Valve arrangement	overhead			
Camshaft arrangement	OHC	DOHC	OHC	
Oil cooling	None		air-oil cooler	
Cooling	Water circulation pump, thermostat with by-pass line, finned tube radiator, fan (with viscous coupling on engine 110.984 and 617.912).			
Lubrication	Forced oil circulation via gear-type oil pump			
Oil filter	Full-flow filter		Combination full-flow and by-pass filter	
Air filter	Air filter with paper cartridge			

¹) Federal version

²) California version

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Dimensions

Length overall	mm (in)	4848 (190.9)
Width	mm (in)	1786 (70.3)
Height, ready-to-drive	mm (in)	1438 (56.6)
Wheel base	mm (in)	2795 (110)
Track	front mm (in)	1488 (58.6)
	rear mm (in)	1446 (56.9)
Wheel lock	inside approx. degrees	43
	outside approx. degrees	33
Turning circle – min. diam.	m (ft.)	11.29 (37)

Weights

Vehicle curb weight	kg (lbs)	1450 (3197)	1600 (3527)	1455 (3208)	1595 (3516)
Gross vehicle weight (GVWR)	kg (lbs)	1980 (4365)	2070 (4564)	1995 (4398)	2070 (4564)
Gross axle weight rating (GAWR) front/rear	kg (lbs)	930/1050 (2050/2315)	1000/1070 (2205/2359)	950/1045 (2094/2304)	1010/1060 (2227/2337)

Electrical System

Battery	Voltage Capacity	12 V 66 Ah	12 V 55 Ah	12 V 88 Ah
Starter	Bosch	GF 12 V 1.5 KW		JF 12 V 2.0 KW
Alternator	Bosch	K1 14 V 55 A 20 maximum output 770 W		

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Filling Capacities

Fuel tank/reserve	Fuel approx.ltr. (US gal.)	80/11.5 (21.1/3)				
Engine	Initial filling	Engine oil approx. ltr. (US qts.)	6 (6.3)	7.5 (8)	7.5 (8)	7.5 (8)
	Oil and filter change	Engine oil approx. ltr. (US qts.)	5.5 (5.8)	6.5 (6.9)	6.5 (6.9)	6.5 (6.9)
	Oil pan up to markings on oil dipstick	Engine oil max/min ltr. (US qts.)	5/3.5 (5.3/3.7)	6/4.5 (6.3/4.8)	5/3.5 (5.3/3.7)	5/3.5 (5.3/3.7)
	Oil filter	Engine oil approx. ltr. (US qts.)	0.5 (0.53)	0.6 (0.63)	1.5 (1.6)	1.5 (1.6)
Cooling system with heater	Coolant approx. ltr. (US qts.)	10 (10.6)	10.5 (11.1)	10 (10.6)	11 (11.6)	
Water pump		maintenance free				
Brake system	Brake fluid approx. ltr. (US pts.)	0.5 (1.1)				
Manual transmission	Autom. transmission fluid (ATF) approx. ltr. (US qts.)	—	—	1.6 (1.7)	—	
Automatic transmission	Initial filling/ fluid change	6.1/4.8 (6.4/5.1)	6.6./5.3 (7.0/5.6)	6.1/4.8 (6.4/5.1)	6.1/4.8 (6.4/5.1)	
Rear axle	Hypoid oil SAE 90 approx. ltr. (US pts.)	1 (2.1)				
Power steering	Autom. transmission fluid (ATF) approx. ltr. (US pts.)	1.4 (3)				

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Driving Performance with Manual Transmission

Rear axle ratio	–	–	3.69	–	
Maximum speed in individual gears	1st gear km/h (mph)	–	–	35 (22)	–
	2nd gear km/h (mph)	–	–	60 (37)	–
	3rd gear km/h (mph)	–	–	98 (61)	–
	4th gear approx. km/h (mph)	–	–	138 (86)	–
Gradability	1st gear (slip limit) % (1 in)	–	–	35 (2.86)	–
	2nd gear % (1 in)	–	–	19 (5.86)	–
	3rd gear % (1 in)	–	–	10.5 (9.52)	–
	4th gear % (1 in)	–	–	6.5 (15.38)	–
Acceleration through the gears 0 to 100 km/h (0 to 62 mph) Load – 2 persons	sec ± 7 % ¹⁾	–	–	24.6	–
Engine rpm at 100 km/h (62 mph) 4th gear	–	–	3195	–	

Performance Data with Automatic Transmission

Rear axle ratio	3.69	3.54	3.69	3.46	
Maximum speed in individual gears	1st gear km/h (mph)	40 (25)	42 (26)	32 (20)	36 (23)
	2nd gear km/h (mph)	80 (50)	88 (55)	60 (37)	64 (40)
	3rd gear km/h (mph)	134 (83)	145 (90)	98 (61)	104 (65)
	4th gear approx. km/h (mph)	150 (93)	180 (112)	133 (83)	143 (98)
Gradability	1st gear (slip limit) % (1 in)	43 (2.33)	41 (2.44)	42 (2.38)	41 (2.44)
	2nd gear % (1 in)	38 (2.63)	41 (2.44)	30 (3.33)	37 (2.70)
	3rd gear % (1 in)	20 (5.00)	23 (4.35)	12 (8.33)	15 (6.67)
	4th gear % (1 in)	8 (12.50)	9 (11.11)	6 (16.67)	7.5(13.33)
Acceleration through the gears 0 to 100 km/h (0 to 62 mph) Load: 2 persons	sec ± 7 % ¹⁾	18.8	12.9 (13.5) ³⁾	27.4	20.8
Engine rpm at 100 km/h (62 mph) 4th gear	3280	3155	3280	3090	

¹⁾ The ± 7 % factor includes possible deviations from permissible engine and tire tolerance limits.
³⁾ California version

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Fuel/oil Consumption Data and Operating Conditions

Fuel consumption during average cross-country driving	ltr./100 km (miles/US gallons)	11–19 (21–12)	12–19.5 (20–12)	9–12 (26–20) 8–11 (29–21) ²⁾	9–14 (26–17)
Fuel consumption at 110 km/h (68 mph)	ltr./100 km (miles/US gallons)	14 (17)	14.8 (16) 15.4 (15) ³⁾	10 (23) 9.5 (25) ²⁾	11.5 (20)
Engine oil consumption	ltr./100 km (miles/US pints)	0.15–0.25 (196–118)			
Coolant-Temperature	in working range of thermostat approx. °C(°F)	78–95 (172–203)	85–100 (185–212)	80–95 (176–203)	
	max. temperature approx. °C(°F)	126 (259)			
Fuel type		Gasoline, lead-free		Diesel fuel according to ASTM D 975 No. 1-D, 2-D	
Anti-knock property	Minimum-ROZ	91		—	
	Minimum-MOZ	81		—	

¹⁾ The ± 7 % factor includes possible deviations from permissible engine and tire tolerance limits.

²⁾ Manual transmission

³⁾ California version